DataGeneral
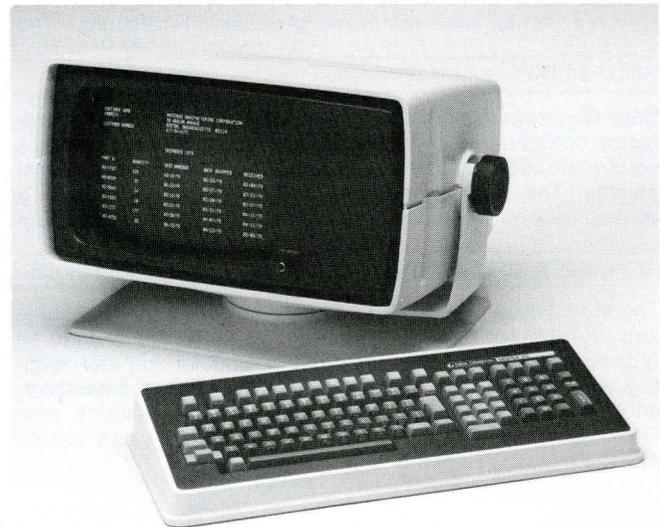
FEATURES

- 96-character ASCII-compatible, alphanumeric display terminal
- 12" tilt-and-swivel, 1920-character monitor
- Detached, sculptured typewriter keyboard with integral 14-key data-entry pad and 18 function keys
- Industry-compatible asynchronous communications interface
- EIA auxiliary printer interface
- User-selectable brightness, blink, block/fill, reverse video and underscore—in any combination
- 5 x 7, dot-matrix, upper-case and 5 x 8 dot matrix, lower-case characters
- Direct cursor positioning and sensing
- Audible tone on "Bell" character
- Choice of 20mA or EIA RS-232-C communications interface
- Selectable receive/transmit speeds up to 19.2K bps
- Choice of interactive or buffered operation
- American, French, German, Swedish or British fonts and keyboards
- Data General software support for interactive operation on ECLIPSE®, NOVA®, microNOVA™ and Commercial Systems computers

DESCRIPTION

The Model 6093 DASHER™ D3 display is an operator-oriented, 96-character ASCII, alphanumeric terminal designed and manufactured by Data General. It consists of a detached, sculptured, typewriter-style keyboard, a pedestal-mounted monitor that tilts and swivels, and an industry-compatible, asynchronous communications interface. The interface provides selectable speeds up to 19.2K bits per second, which can be independently set for receive and transmit data rates. The terminal can be connected to a central computer using the current loop interface with cables up to 1500 feet (457M) long. The standard EIA (RS-232-C) interface can be used for remote applications via data sets (modems). Standard communications with Data General ECLIPSE, NOVA, microNOVA or Commercial Systems are handled in the interactive (character) mode. OEM's and system designers can tailor applications to take advantage of the DASHER D3's buffered operation mode. The DASHER D3 not only allows transmission of information blocks, in buffered mode, but also provides a broad range of text-editing functions for transmitting "clean" validated information. This removes significant overhead from the host processor.

APPLICATIONS

The Model 6093 DASHER D3 display is a high-throughput ASCII terminal ideal for a large number of applications requiring high-speed, interactive communication with a host processor. The broad range of operating parameters make these products particularly suitable to multiterminal installations where data input/output is a significant portion of system overhead. The detached typewriter keyboard with 14-key numeric pad provides an effective operator interface for interactive data entry applications. The display monitor tilts and swivels to accomodate available furniture and lighting conditions, which increases operator comfort. The display's clear, large, readable screen combined with the standard printer option, make program development fast and efficient. And the high-speed asynchronous communications interface provides fast response to data base inquiry applications.

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SCREEN MANAGEMENT

The 6093 DASHER D3 display incorporates many operator features for cursor and text manipulation. In interactive mode, a separate keypad on the main keyboard controls cursor motion. Standard keys move the cursor up, down, left and right as well as to its home position.

A full repertoire of text-manipulation functions is available for users operating the DASHER D3 in buffered mode. A simple keystroke can move, insert, or delete single characters, words or blocks of information without host processor intervention.

For information highlighting and forms design, several user-defined character attributes can differentiate portions of the displayed text. Programmable character blink, underscore, dual-intensity, block fill, reverse video and protection can be set as individual character attributes or can be selected in combinations, giving users the utmost flexibility.

MONITOR SUBSYSTEM

The terminal monitor presents upper-case alphanumeric characters formed by a 5 x 7 dot matrix and lower-case characters formed by a 5 x 8 matrix. The 12-inch (30.5 cm) diagonal screen's etched face minmizes glare and reflections. The monitor is a raster scan, non-interlaced design that displays a maximum of 1920 characters arranged as twenty-four 80-character lines. The full 96 ASCII character set, or its international equivalent, can be displayed.
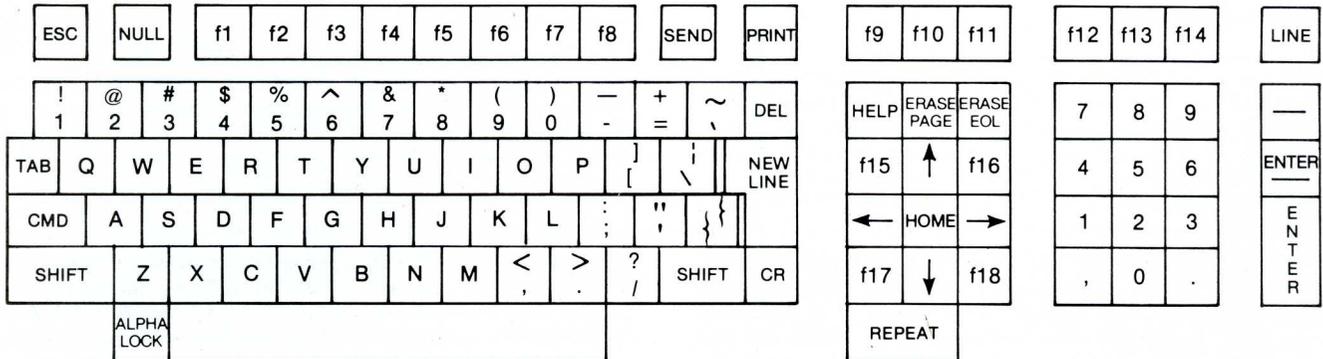
RELIABILITY

Data General's 6093 DASHER D3 display uses extensively tested components and designs. The sculptured keyboard is solid-state and capacitively switched, requiring no mechanical linkage. The two printed circuit boards are mounted in a vertical rack between air vents located at the top and bottom of the display enclosure. Air passing between these vents provides all necessary cooling without electric fans. All operating parameters are input directly from the keyboard into non-volatile RAM eliminating the need for switches and enhancing product integrity and reliability.

KEYBOARD SUBSYSTEM

The Model 6093 DASHER D3 display keyboard is detachable and movable for maximum operator comfort. It's sculptured typewriter layout reduces the need for special operator training. A 14-key numeric pad facilitates high-speed data entry, and 18 user-defined function keys speed transaction processing. Additional keys provide cursor control and editing functions. All keys are electronically debounced and provide for n-key rollover. The 6093 DASHER keyboard uses capacitively-switched, solid-state keys for maximum reliability and long life.

PRINTER INTERFACE

The Model 6093 DASHER D3 display incorporates an auxilliary EIA (RS-232-C) port that can interface a slave printer. Available speeds, selected from the display keyboard, are 110, 150, 300, 600, 1200, 1800 or 2400 bps. Control of the printer's operation can be direct from the display or can be passed to the host processor for pre-created text printing. Data General's DASHER TP1 and TP2 printers are particularly suitable for this application.

INTERNATIONAL LANGUAGES

All Model 6093 DASHER D3 displays can be ordered with a choice of international character sets and keyboards. Language support for France, Germany, Sweden and the United Kingdom is available at no additional charge. DASHER D3 displays configured with international character sets have keyboards resembling those found on standard office typewriters in their respective countries, eliminating operator retraining in most cases.

SOFTWARE

In interactive mode, the Model 6093 DASHER D3 display is supported on all Data General systems using standard software. The Advanced Operating System (AOS) is a powerful, intelligent multiprogramming operating system. The Real-time Disc Operating System (RDOS) is a modular, disc-resident, multitasking system that optionally supports memory management hardware and dual operations. The Disc Operating System (DOS) handles smaller system applica-tions. As a data entry terminal, the 6093 is supported by Data General's Interactive data entry/access (Idea) system. Idea provides extensive development, maintenance, and runtime features for screen-oriented, data- and transaction-driven requirements. The 6093 operates with Data General's high-level languages, including COBOL, FORTRAN IV and 5, RPG II, Extended BASIC, DG/L™, PL/I and ALGOL.

SPECIFICATIONS

GENERAL

MONITOR

Type: Cathode ray tube.
Screen size: 9" x 6"; 12" diagonal (22.9 cm x 15.2 cm; 30.5 cm diagonal).
Number of Characters: 24 lines x 80 characters, 1920 total.
Phospher: P4 white.
Display: Raster scan, non-interlaced.
Character Size: 5 x 8 dot matrix.
Deflection: magnetic.

KEYBOARD

Style: Detached, sculptured typewriter layout.
Cable Length: 4' (1.2m) to monitor.
User defined function keys: 18.
Keypads: Integral 14-key numeric, and separate cursor control pad.
Type: Solid state capacitively-switched.

CHARACTER SET

96 ASCII set, upper and lower case.
International Fonts: British, German, Swedish, French. (Includes appropriate typewriter keyboard)

COMMUNICATIONS INTERFACE

Transmission Type: Asynchronous.
Transmission Mode: Full duplex.
Receive Speed: 10 selectable speeds, up to 192K bps.
Transmission Speed: 11 selectable speeds, up to 19.2K bps.
Parity: Selectable odd, even, or mark.
Character Length: 11 bits at 110 bps, 10 bits all other speeds

Modem Types: Bell 103, 202 equivalent (full duplex).
Modem Controls: Data Terminal Ready, Request To Send, Clear To Send.
Line Interface: Selectable—20mA current loop/EIA (RS-232-C).
Keyboard Repeat Rate: Selectable—10, 15, 30, 60 cps.
Transmit Character Pacing Rate: Selectable—none, 60, 120, 240 (or 480 cps)

COLOR

White monitor with blue trim; blue keyboard with white trim.

WEIGHT

Monitor: 45 pounds (20.4 kg)
Keyboard: 7 pounds (3.1 kg)

PRINTER INTERFACE

Type: Serial, asynchronous.
Interface: RS-232-C.
Speed: Selectable 110, 150, 300, 600, 1200, 1800 or 2400 bps. Recommend one of DASHER TP1 or TP2 printers.

LINE INTERFACE

20mA: 25' standard; to 1500' maximum.
RS-232-C: 25' standard; to 50' maximum.

AC POWER REQUIREMENTS

120 volts, 60Hz ($\pm$ 2Hz), single phase; 100 volts, 50Hz ($\pm$ 2Hz), single phase; 220 volts, 50Hz ($\pm$ 2Hz), single phase; 240 volts, 50Hz ($\pm$ 2Hz), single phase 75 watts typical; voltage tolerance +10%, -15%.

SALES AND SERVICE

The materials contained herein are summary in nature, subject to change, and intended for general information only. Details and specifications concerning the use and operation of Data General equipment and software are available in the applicable technical manuals, available through local sales representatives.

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